

AD-A274 048



2

**Operational Defense: Covering all the Bases**

**A Monograph  
by**

**Major Don W. Bailey  
Chemical**

**S** DTIC  
ELECTE  
DEC 22 1993  
**A**



**School of Advanced Military Studies  
United States Army Command and General Staff College  
Fort Leavenworth, Kansas**

**Second Term AY 92-93**

**Approved for Public Release; Distribution is Unlimited**

**93-30907**



93 12 22 041

# REPORT DOCUMENTATION PAGE

Form Approved  
OMB No. 0704-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.

1. AGENCY USE ONLY (Leave blank)		2. REPORT DATE 11/05/93		3. REPORT TYPE AND DATES COVERED MONOGRAPH	
4. TITLE AND SUBTITLE OPERATIONAL DEFENSE: COVERING ALL THE BASES				5. FUNDING NUMBERS	
6. AUTHOR(S) MAJ DON W. BAILEY, USA					
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) SCHOOL OF ADVANCED MILITARY STUDIES ATTN: ATZL-SWV FORT LEAVENWORTH, KANSAS 66027-6900 COM (913) 684-3437 AUTOWON 552-3437				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSORING/MONITORING AGENCY REPORT NUMBER	
11. SUPPLEMENTARY NOTES					
12a. DISTRIBUTION/AVAILABILITY STATEMENT APPROVED FOR PUBLIC RELEASE; DISTRIBUTION UNLIMITED				12b. DISTRIBUTION CODE	
13. ABSTRACT (Maximum 200 words) <del>SEE ATTACHED - CAN BE PLACED IN THIS BLOCK IF YOUR ABSTRACT IS TOO LENGTHY</del>					
14. SUBJECT TERMS OPERATIONAL DEFENSE DEFENSE THEORY DEFENSE DOCTRINE + TRAINING KOREA, 1944 ITALY, 1944 RUSSIA, 1944				15. NUMBER OF PAGES 48	
				16. PRICE CODE	
17. SECURITY CLASSIFICATION OF REPORT UNCLASSIFIED	18. SECURITY CLASSIFICATION OF THIS PAGE UNCLASSIFIED	19. SECURITY CLASSIFICATION OF ABSTRACT UNCLASSIFIED	20. LIMITATION OF ABSTRACT UNCLASSIFIED		

**BEST  
AVAILABLE COPY**

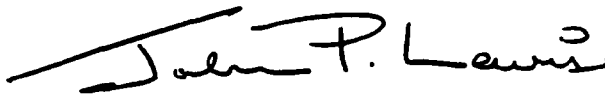
SCHOOL OF ADVANCED MILITARY STUDIES

MONOGRAPH APPROVAL

MAJOR Don W. Bailey

Title of Monograph: Operational Defense: Covering All  
The Bases

Approved By:



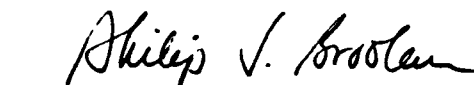
LTC John Lewis

Monograph Director



COL James R. McDonough, MS

Director, School of  
Advanced Military  
Studies



Philip J. Brookes, Ph.D.

Director, Graduate  
Degree Program

Accepted this 18th day of May 1993

## **ABSTRACT**

**OPERATIONAL DEFENSE: COVERING ALL THE BASES** by MAJ Don W. Bailey, USA, 48 pages.

This monograph investigates operational defense with particular emphasis on future major regional contingencies. Theory, history, and modern U.S. Army doctrine and training are explored.

The first portion of the monograph investigates what three military theorists, Clausewitz, Jomini, von Leeb, and Svechin, have written about the defense. From their descriptions of the defense a list is developed. This list defines those characteristics that should be considered by the operational planner when designing a defense for the early stages of a major regional contingency.

Three historical defensive campaigns are then analyzed using the Operational Operating Systems (OOSs). A list of insights from these campaigns is developed that also characterize a successful defense. The three campaigns analyzed are the German defense of Italy, 1943-1945, the destruction of German Army Group Center in its defense of Bellorussia, 1944, and The U.S. Army's actions in Korea, June through September, 1950.

The third portion of the monograph reviews present and emerging operational level doctrine. A critical analysis is performed to determine if the characteristics of a successful defense found in theory and insights from history is discussed in current U.S. Army doctrine. This analysis is followed by an examination of what is taught to officers concerning operational defense in the U.S. Army's Command and General Staff College (CGSC) and Advanced Military Studies Program (AMSP).

The conclusion makes a final comparison of the characteristics of a successful operational defense found in military theory and insights from history to those found in modern U.S. Army doctrine and taught in its training institutions. Where weaknesses are found in doctrine and training curriculums, suggestions are made as to how to correct the deficiencies.

## TABLE OF CONTENTS

I.	INTRODUCTION . . . . .	1
II.	THEORETICAL REVIEW . . . . .	3
III.	HISTORICAL CASE STUDIES . . . . .	15
IV.	MODERN DOCTRINE AND TRAINING . . . . .	30
V.	CONCLUSION . . . . .	35
VI.	ENDNOTES . . . . .	41
VII.	BIBLIOGRAPHY . . . . .	45

Accession For	
NTIS	CRAW
DTIC	TFE
Unannounced	
Justification	
By	
Distribution	
Approved by	
Dist	Avail and/or Serial
A-1	

DTIC QUALITY INSPECTED 3

## I. INTRODUCTION

Shortly after Iraq invaded Kuwait in 1990, the United States deployed contingency forces to Saudi Arabia to defend against further aggression by Iraq. But more important, these units were to defend and gain time for the deployment of follow-on forces to the area. The design for these additional forces was offensive, to expel Iraq from Kuwait if diplomatic attempts to resolve the conflict failed.<sup>1</sup>

General Colin Powell, Chairman of the Joint Chiefs of Staff (JCS), has said that future involvement in major regional contingencies will be similar to 1990-91's Operation Desert Shield/Storm.<sup>2</sup> Either forces focused on a particular region or contingency forces will deploy to a potential major conflict, defined as having an enemy potentially stronger than our initial contingency forces alone can defeat. The initial number of forces, especially ground forces, arriving in theater will be limited because only a finite quantity of transportation assets are available for deployment. These forces' initial mission will be to defend, while additional forces are deployed into the region. Once adequate forces arrive, offensive operations can begin to bring the conflict to an end should diplomatic attempts fail. This defines a "major regional contingency." Defensive operations, therefore, become an integral part of the

U.S. military's concept for future operations of this type.

As the emphasis on national defense wanes, this period of defensive operations during a major regional conflict will become more important. With decreasing defense budgets, a reduced active strength, a continued high reliance on Reserve Components, and a smaller defense industrial complex, it will take longer than it did during Desert Shield to mobilize and deploy all the forces required for offensive operations. This means that operations to facilitate this mobilization and deployment could require initial forces in theater to conduct a defense lasting much longer than the months required during Desert Shield.

This monograph will explore the defense at the operational level, especially with respect to a major regional contingency. An in-depth look at the theory of the defense will establish characteristics a successful operational defense should possess. Historical examples will then be analyzed using the operational operating systems (OOSs) to draw insights. Finally, the U.S. Army's doctrine and training for operational defense will be compared to the characteristics established from theory and the insights drawn from the historical examples to determine their adequacy.

## II. THEORETICAL REVIEW

Nearly all military theorists discuss the defense. For the purposes of this monograph, Clausewitz, Jomini, von Leeb, and Svechin's theories on defense are explored. Clausewitz and Jomini provide the basis of classical defense theory while von Leeb and Svechin provide contemporary insights. Each of their theories has at one time or another been used as the basis of an army's doctrine. They therefore provide a foundation on which to investigate the theory of defense and establish attributes that characterize a successful defense.

The purpose of the defense, according to Clausewitz's definition, is "preservation of the fighting forces." He further states that ground is easier to hold than to take.<sup>1</sup> Therefore, the defense requires less forces than the offense. The defense is ideal for future conflicts where time will be required for mobilization and deployment of additional forces once contingency forces arrive in theater. Smaller forces, quickly deployed, must establish a defense, buying time and causing the enemy to expend forces while attacking. In the earliest phases, tactical defense may be the only option available to the theater commander. As forces build up, he must consider how to employ them operationally until adequate forces are available to transition to the offense. But, what characterizes a



successful defense at the operational level? What makes it what Clausewitz calls the stronger form of warfare?<sup>4</sup>

Clausewitz asserts the greatest advantages of the defense are those of position and time.<sup>5</sup> The defender, able to select the ground on which he wishes to fight, can prepare it for battle. The terrain selected should be the most difficult for the attacker. The defender's preparations make the terrain even more difficult. Additionally, should the attacker delay his operations, the defender continues to prepare his positions. These preparations add to the preservation of the defending forces. Quick deployment of contingency forces and selection of the critical terrain gains this advantage of time and position. Maximum effort must then be made to reinforce the terrain at a time that resources and forces are severely limited. The employment of follow-on forces must continually be planned for as they arrive in theater. They should be used to improve the defense. The longer the enemy waits, the stronger the defense becomes.

Jomini and von Leeb claim interior lines of communications (LOCs) offer the defender a great advantage. By exploiting these interior LOCs, the defender moves forces and supplies about the battlefield much faster than his opponent.<sup>6</sup> The defender can mass his forces at the decisive point and time. With limited forces, being able to exploit such flexibility and

mobility is critical. An operational defense must, when possible, plan for and exploit the advantages offered by interior LOCs.

Although the defense is designed to hold ground and preserve the force, sometimes the defender must withdraw from the attacker. Svechin states the defender must plan for withdrawals.<sup>7</sup> Should the defender fail to do this he will find himself overwhelmed. Clausewitz advocates that the established LOCs of the defense offer great advantages for the defender.<sup>8</sup> He can define the routes his forces fall back along, thus setting the conditions for an orderly withdrawal. Additionally, all along these routes, the defender can stockpile critical supplies for use during the withdrawal. The attacker has none of these advantages. He must carry adequate supplies with him and protect them as he penetrates into the defender's territory and he cannot as easily and directly move forces about. Failure to prepare for a withdrawal could prove disastrous though. Routes rearward will become clogged with forces allowing the attacker to overcome the defender.

Theorists believe that intelligence plays a major part in a successful defense. The defender needs to be aware of the attacker's intentions whenever possible. Svechin and von Leeb advocate the use of covering forces. Both discuss the use of large mobile forces and stay behind forces, each designed to gain information for the

defending commander. They predict the importance of aircraft for use in intelligence gathering.<sup>9</sup> However, Clausewitz reminds the defender that reconnaissance is not the only mission for these covering forces. These forces must also defeat the attacker's reconnaissance activities, what today is called counter-reconnaissance.<sup>10</sup> With limited ground forces, these intelligence missions require using other assets. Air force reconnaissance, unmanned aerial vehicles (UAVs), electronic, and strategic assets such as AWACS and JSTARS are assets that must be requested and planned for.

When designing a defense there are different forms from which to choose. One is the cordon type. It is characterized by a single line of defending forces separating the attacker from his objective. Clausewitz determined that the cordon was the most efficient means of defending everywhere, offering the best method of preserving the defender's forces while attriting the attacker's.<sup>11</sup> This form of defense, which normally requires great numbers of forces, may not be appropriate early during a regional contingency with limited forces available.

Von Leeb and Clausewitz admit the major drawback to the cordon defense is the large number of forces required. It simply cannot be strong enough to withstand formidable attacks everywhere.<sup>12</sup> Von Leeb is adamant that it can be overcome by the attacker massing his

forces at a decisive point, breaking through the cordon.<sup>13</sup> Operational commanders must find ways to overcome these disadvantages, if this form of defense is chosen.

A variation of the cordon is the positional defense which involves defending key geographic points or approaches into the area to be defended.<sup>14</sup> This type of defense may require less forces to repel an attacker, especially in mountainous terrain with few corridors or along shorelines with limited landing sites. Any geographical place the defender ascertains is important to the attacker may be selected. If such terrain is identified, limited forces can be concentrated there and defend almost indefinitely.

While Clausewitz and Jomini agree on the importance of the positional defense, Svechin disagrees. He believes that if a defense is designed around geographical points, the attacker will find a way to defeat or bypass these positions. Hence, the defense will fail. It would therefore be prudent to explore the possibilities of using geographical positions in preparing a defense, but the operational commander must also plan for their defeat.

Svechin, among others, point out that a strong, mobile reserve is the best method of overcoming the disadvantages of either a cordon or positional defense.<sup>15</sup> A mobile reserve can be moved to the point of the attack

and defeat it. The cordon or positional defense serves as a trip wire force that delays the attackers until the reserve arrives. If the intelligence forces have determined the location of the attack, the defending commander can move the reserve well before the attack. If it is known the enemy will attack on a broad front, the defender will need to strengthen his defense and have multiple reserves. In determining force requirements for a regional contingency, mobile reserves must be planned for. Air assault assets, because of their built-in mobility, may offer the best asset for a ground force mobile reserve.

Svechin professes the use of air power as a reserve. It also can blunt offensives at the point of the attack.<sup>16</sup> Jomini and von Leeb advocate the use of fires as a reserve.<sup>17</sup> Artillery and rockets can be fired from much greater ranges and do not require the movement of forces. Both air and ground fires can also attack forces before an offensive begins. If the attacking forces' assembly areas can be identified, they can be destroyed when in range. Both of these techniques can be used against a narrow or broad front attack. Air force and naval aircraft make excellent reserves because they can arrive in theater much quicker than "heavy" ground forces during a major regional contingency. Electronic warfare assets may also be used to attack the enemy's command and control assets.

Planners, therefore, must explore the many force options available when determining which forces deploy first during one of these contingencies. They must determine the types and amount of the various forces available versus the transportation assets available. A balance must then be met between air, ground, and naval forces as well as combat, combat support, and combat service support forces. "Packaging" of assets becomes important when designing a defense for major regional contingencies. Great thought must go into designing these force packages.

Von Leeb advocates defense in depth.<sup>18</sup> The depth may be represented by multiple lines of forces, if available, or multiple positions. The attacker, as he defeats one defensive layer, must then take on another. Each layer further exhausts his forces. In the early stages of a major regional contingency, it is likely that multiple positions rather than lines of forces would be used because of the limited numbers of ground forces available. The additional positions could be used by the forward forces as they withdraw to reestablish a defense or by reserves to blunt and attack.

There is another form of defense characterized by the defender deliberately and continually withdrawing while fighting the attacker. The defender gives up territory, while preserving his forces and weakening his opponent's. Both Clausewitz and von Leeb advocate the

use of this, if the depth of terrain is available. Von Leeb professes that it is the only way for a smaller defending force to overcome a superior attacking force.<sup>19</sup> This defense causes the attacker continually to move forward, lengthening his LOCs. With each kilometer, the attacking forces become more exhausted. They move further away from their base of support and are continually mounting new attacks. The defending forces preserve their strength. As they find themselves becoming decisively engaged, they withdraw to another position. This causes the attacker to move cautiously forward to mount another attack upon finding the defending forces. Where large land masses or multiple defensible terrain features are available, this form of defense may provide the best chance of success for small operational forces which arrive early in a regional theater.

Defense does not merely constitute repelling an attacker and exhausting his forces. Nearly all theorists agree that offense is an integral component of a successful defense.<sup>20</sup> These offensive actions during the defense are characterized by attacks into the attacking forces to counter them, counterattacks, or limited attacks along the front to relieve pressure at the point of an attack. These offensive actions accelerate the attacker's exhaustion, causing him to cease the attack.

He reaches his culminating point and the defender, if strong enough, can become the attacker.<sup>21</sup>

These counterattacks and limited attacks constitute another form of defense, the mobile defense. During a mobile defense, the defender combines the attack with the positional defense. The defender retains terrain by using the offense to repel the attacker, regain lost terrain, or merely to defeat an enemy locally. The mobile defense is designed to weaken the attacker, retain terrain, and gain time.

The defense established by contingency forces in a regional conflict must include some offensive operations to hold the enemy. These will probably not include major attacks, because of the contingency force's limited capabilities. The offensive actions of the mobile defense, could remove the initiative from the attacker. He would never know what to expect next. Knowing what to attack in order to better repel the attacker, gaining additional time for the force build up becomes very important.

Whether using a positional or mobile defense, when the enemy has made a penetration, Clausewitz and others claim the defender should attack into the flank of the attacker.<sup>22</sup> This action should bring the enemy offensive action to a halt, causing the attacker to withdraw or defend. Should this fail to stop the enemy, the defender may also conduct a limited attack elsewhere in a quieter



part of the theater. This attack, if strong enough, should cause the attacking enemy to withdraw. Air power provides the operational commander an excellent force for such counterattacks, when limited ground forces are available.

Clausewitz and Jomini specify that the defender should attack the attacker's LOCs, rear areas, and his lines of retreat, if they differ from his LOCs.<sup>23</sup> These attacks shift the attacker's focus from the offense. Portions of his forces must be removed to the rear areas to protect them, thus weakening his forces available for offensive actions. At the same time, Clausewitz and Jomini warn that attacks are not an end unto themselves. They alone will not bring about victory.

These limited offensives may be carried out through various means. Clausewitz discussed the use of forces that today we would call "stay behinds," small forces designed to hide while the larger force withdraws.<sup>24</sup> Once bypassed, they operate independently in the attacker's rear. Jomini, on the other hand advocates using special detachments which attack on a narrow front deeply into the attacker's rear and accomplish the same objectives.<sup>25</sup> Today, special operations forces (SOF) and light infantry divisions can fulfill the stay behind requirement. Their ease of deployment usually allows these forces to arrive first in theater for a contingency. Air power or a force like the Soviet

Operational Maneuver Group (OMG) are especially suited for executing the mission Jomini advocates. Planners must decide what types of forces they need in establishing a defense during a contingency. If forces such as these are required, planners must ensure they are part of the package to deploy early.

Von Leeb claims that defending forces must be hardier than other forces; they must be durable.<sup>26</sup> They will probably be fighting outnumbered. They will be under constant pressure from the attacker and may be constantly moving. The reserves may be committed and then recommitted over and over again. In short, forces conducting a defense will have no respite. This will be especially true during the early phases of a major regional contingency.

Von Leeb and Svechin both advocate that the defense is something that must be thoroughly studied. They believe that the defense is much more complicated than the offense, more difficult to execute.<sup>27</sup> Knowing which terrain to choose and how to prepare it for the defense, knowing when and how to conduct limited offensives, synchronizing the available combat power and many other aspects of the defense make it a discipline within itself, one the military professional must study. Clausewitz and von Leeb actually claim that only a bold leader, trained in the defense, can make these decisions.

The combination of training and "bold leadership" contribute to the success of the actual defense.<sup>28</sup>

A commander and his forces, therefore, must train and prepare themselves for defense, especially for the early phases of a regional contingency. Assets will be finite. Trying to determine which forces to deploy early and learning how to employ them as a contingency crisis unfolds spells disaster. This may mean that specific forces and commanders should be identified and trained for this important, difficult mission.

Svechin goes on to say that a nation must thoroughly study potential adversaries in order to adequately prepare its defense.<sup>29</sup> By knowing the organization, equipment, and doctrine, as well as the strategic aspirations of a potential enemy, a defender can better prepare himself to defeat an attack. The U.S. must look broadly at the world and be prepared to deploy anywhere. When a contingency arises, the military must quickly assess what is immediately needed to establish a defense, tailor the force, and deploy it.

TABLE 1 provides a summary of those characteristics military theorists advocate must be considered when organizing a successful defense. It is not imperative that a defense possess each of these characteristics to be successful, but planners must decide which are needed given the situation. The characteristics to be used will

dictate which types of forces will be required in theater early during a regional contingency.

<u>Types of Defense</u>	<u>Intelligence</u>	<u>Mobile Reserve</u>	<u>Offensive Actions</u>
-Cordon	-Study Enemy	-Ground	-Against Flanks
-Positional	-Reconnaissance	-Air	-Against LOCs
-Draw into Country	-Counter-Move	-Fire	-Against Rear
-Mobile	<u>Mobility</u>	<u>Durable Forces</u>	-With Stay Behinds
<u>Depth</u>	-Interior Lines	<u>Training</u>	-With Detachments
<u>Planned Withdrawals</u>	-Protect LOCs	<u>Bold Leadership</u>	-Reserves

TABLE 1: Theory Characteristics

### III. HISTORICAL CASE STUDIES

Three defensive campaigns are explored to ascertain what characteristics led to their success or failure. The first case study is of the successful German defense of the Italian Peninsula during 1943-1945. The second is the failure of German Army Group Center's defense of Bellorussia in 1944. The last defensive campaign explored resembles, in many ways, a major regional contingency. That campaign is the defense of the Korean peninsula by the U.S. in 1950.

In the fall of 1943, the Allied 15th Army Group invaded Italy. Montgomery's Eighth Army landed at Calabria on 3 September. Six days later, Clark's Fifth Army landed at Salerno. The German commander opposing

the Allied 15th Army Group was Field Marshal Albert Kesselring, who was convinced that he could defend the Italian peninsula almost indefinitely. He conducted a slow withdrawal in the south with one army corps, the 76th, while another, the 14th, contained the Fifth Army at Salerno. The German 76th Corps pivoted on the 14th Corps allowing the Allied Eighth Army slowly to move up the peninsula.<sup>30</sup> When the two corps came on line, Kesselring fought a positional defense using the mountainous terrain of central Italy. He prepared a series of strongly fortified lines to be defended with the limited forces available.<sup>31</sup> Even with an attempted envelopment at Anzio and the lack of air superiority, Kesselring defended the Italian Peninsula into the early months of 1945. All this time he was tying up and exhausting forces, making them unavailable for use elsewhere.

The Allies maintained their operational maneuver throughout the campaign, as exemplified by the Anzio landings in January 1944. Kesselring, though, removed their operational mobility early in the campaign. He had his engineers, those not preparing the fortified lines to the north, prepare every bridge and culvert for demolition; every road junction was cratered in southern Italy and roads on the sides of hills and mountains were cut. Kesselring successfully delayed the Allies. After

only one hundred miles, the Allies had expended all of the theater's bridging assets.<sup>32</sup>

Kesselring added more pressure through independent rearguards. These small detachments, equipped with heavy weapons and supported by artillery, would stop entire divisions for one to two days. Before the Allies could reduce a detachment, the Germans would withdraw to the next defensible position. The Allied forward progress was continually being halted.<sup>33</sup> Kesselring maintained the initiative while on the defense.

Despite all the efforts, the Allies could not take Kesselring's operational mobility away from him. The Allies, through fires, both artillery and air power, could not stop Kesselring from moving forces to the decisive point at the decisive time. In essence, Kesselring maintained his mobility on his interior lines, moving forces and supplies from quiet sectors to those that were under heavy pressure.<sup>34</sup> Without uninhibited mobility, moving reserves and supplies would have been impossible.

Kesselring understood the importance of firepower. As was discussed earlier, artillery was used extensively at each of the delay positions in the mountains. When the Germans manned fortified lines in the mountains, Kesselring concentrated his artillery, employing it as a reserve and a counterattack force.<sup>35</sup> In one instance, the Germans actually allowed the Allies to make a major

penetration only to be destroyed by artillery.<sup>36</sup> At Anzio, the Germans extensively employed their air power to contain the Allies even though they did not have air superiority.<sup>37</sup>

With the loss of air superiority, Kesselring lost the majority of his reconnaissance capability. However, he did have extensive files on each of the Allied Armies and their commanders which had been prepared by the German General Staff. These files, in addition to the limited terrain, allowed Kesselring to predict the Salerno and Anzio landings, as well as the major axis the Allies would take. He correctly predicted that the initial Allied objective was Rome.<sup>38</sup> This shows the importance of knowing and understanding how your enemy thinks. Had Kesselring not understood the opponents he faced, his defense may have failed.

None of the Allied efforts interfered with Kesselring's support operations. Even when the Allies developed an air campaign specifically designed to interdict Kesselring's LOCs, it had little effect. Kesselring again made use of his internal LOCs and his knowledge of his opponent to insure his forces were serviced.<sup>39</sup> Sensing that the Allies would try to destroy his northern logistics bases and interdict his LOCs, Kesselring did several things to counter these possibilities. First he moved his logistics bases further south and distributed them throughout the country

side. He also stockpiled many of his supplies in subsequent positions and along withdrawal routes. He used multiple LOCs to move his supplies and moved only at night. These precautions prevented the Allies from exhausting Kesselring's forces through lack of supply.

Kesselring personally kept the employment authority for his reserves. His personal control of his ground and air reserves shows the importance he placed on them. He positioned them where they were most advantageous. He never allowed there not to be a reserve. He constantly pulled forces from quiet sectors to reconstitute reserves when others were committed. When the landings at Anzio began, Kesselring decided not to use his reserves positioned for use in the mountainous terrain to the south. He formed reserves from units that were resting or moving into the theater.<sup>40</sup> By spring 1945, German attrition prevented the reconstitution of reserves causing the loss of the last German positions in Italy.<sup>41</sup>

Finally, von Senger, Kesselring's subordinate commander responsible for the defense of the Cassino area, placed a great deal of credit for the German's success on their study of the defense. The subject was taught exhaustively in German military schools. Students were encouraged to conduct self-study in this area.<sup>42</sup> This adulation echoes what Svechin discussed earlier.

Kesselring's Italian campaign provides many insights for an operational planner when preparing for the initial



stages of a major regional contingency. It demonstrates the importance of commanders and planners thoroughly studying the defense. It shows the importance of knowing your enemy, how he is organized, his types of equipment and how he operates. Kesselring's grasp of the importance of these two enabled him to defeat the Allies. Modern commanders and planners of major regional contingencies must have the same knowledge when they face their enemy if they are to be successful.

Kesselring, using his knowledge of the defense and his opponent, was able to weave in specific characteristics to design his defense for success. Modern planners can employ some the same characteristics in their defensive plans. Given similar terrain, an enemy can be stopped using a prepared positional defense in depth. Plans should also include provisions for removing the attackers mobility, slowing his offensive, and removing his initiative as Kesselring did. The plans must include protecting friendly mobility along interior LOCs where possible. Movement of supplies and reserves depend on it. As with Kesselring, a great emphasis must be placed on always having a viable, mobile, ground reserve and its employment closely monitored. With limited ground forces available, operational fires, both artillery and air, should be considered to supplement ground forces as reserves. LOCs and support activities must be protected so forces can continually be supported.

And finally, withdrawals should be anticipated and planned for when limited ground forces are available. Kesselring was successful using these characteristics. They should be considered whenever a defense is being planned.

It has been said that "The Allied soldiers remembered the skill and dogged determination of their German opponents in defense and withdrawal..."<sup>43</sup> In another part of the theater of war, the Russians faced a German force that was not as well prepared as those under Kesselring. Looking at the failure of German Army Group Center in 1944 provides additional insights as to what characterizes a successful defense.

The Russians attacked German Army Group Center on 22 June 1944 along a 350-mile front. Three Russian Front Armies and an estimated 400 artillery pieces per mile of front were massed before Army Group Center. The Germans defended in Russia using a 1400-mile cordon defense with little depth and few reserves. Belorussia, where Army Group Center defended, is characterized by flat marshy terrain with little transportation infrastructure or defensible terrain. As Russian armor drove a 250-mile-wide gap into the heart of the Army Group, entire German divisions were encircled, only to be destroyed by infantry. In the first twelve days of the operation, the Germans lost twenty-five divisions with an estimated 2,000 tanks and 10,000 artillery pieces.<sup>44</sup>

The lack of adequate transportation infrastructure hampered the Germans throughout the battle. Roads and bridges were limited; those available could not withstand the traffic.<sup>45</sup> The Soviets added to the problem by destroying many of the bridges with air assets. This backed up German convoys three abreast for thirty miles.<sup>46</sup> In many instances, reserves could not be committed because no routes were available.<sup>47</sup> Lack of operational mobility attributed to the German's defeat in Bellorussia. Their forces basically could not react to anything because they could neither withdraw, provide supplies, nor commit reserves.

German Army Group Center's air support had been withdrawn to the western front during the previous year. Because the Germans had enjoyed air superiority before, they made no arrangements to protect their artillery. The Germans, early in the battle, lost the majority of their artillery to Russian air power.<sup>48</sup> The Germans lost the ability to counterattack by fire with this loss.

In 1944, Hitler himself dictated how the defense of the eastern front was to be conducted. He directed units not to prepare positions in depth. Army Group Center engineers worked only on first line defenses.<sup>49</sup> The flat marshy terrain in Bellorussia contained none of the advantages of what Clausewitz termed defensible terrain.<sup>50</sup> It provided little protection and masked neither the strength nor disposition of the German ground

forces. They, therefore, needed prepared positions to serve as defensible terrain. Positions had been prepared along the forward edge of the cordon, but not in depth. Depth was required because no defensible terrain existed in Army Group Center's area. This lack of defensible terrain and the German failure to prepare positions in depth greatly contributed to the defeat of Army Group Center. Once pushed off their initial positions, the Germans could not organize a cohesive defense and halt the Russian advance.

As cited earlier, Hitler directed the defense of the German Army Group Center. He alone determined when units withdrew and when reserves were committed. Lower commanders had little or no control over the employment of their forces.<sup>51</sup> Hitler, back in Germany, was totally detached from the battlefield. He never had current battlefield data on which to base decisions. He therefore greatly contributed to the defense's failure when he made decisions that were late or wrong.

Initially, the Germans failed to discover that the Russians had massed before Army Group Center. When it was discovered, they refused to believe the main offensive would be against that Army Group.<sup>52</sup> Then, once the fighting started, the Germans failed to realize the Russians had changed their operational tactics.<sup>53</sup> These intelligence failures contributed to the German's overall failure. By not discovering these facts, the Germans

were ill-prepared. This reinforces the importance of studying the enemy and quickly adapting to changes in his operations.

Service support for the forces of German Army Group Center was almost nonexistent. Lack of transportation infrastructure prevented support from moving forward to the withdrawing forces. Roads were congested with forces streaming to the rear. To overcome this, commanders requested airdrops, but these normally failed because of Russian air superiority.<sup>54</sup> Additionally, no evidence exists to show any prior planning to stockpile supplies along routes to be used in withdrawal. Commanders who make these types of errors insure that their forces become exhausted quickly. Plans must be formulated to guarantee forces are supplied.

Probably the biggest mistake made by the German Army Group Center was not being prepared to withdraw. Preparations were never made for this contingency.<sup>55</sup> All efforts were focused on the forward defense, no one had reconnoitered routes to rearward positions. The Germans could not break contact and move in an orderly fashion. Once moving, they were unable to reestablish coherent defenses because of the flat marshy terrain. It did not lend itself to defense without prepared positions. The Germans were condemned to defeat on the roads as they withdrew.

The destruction of German Army Group Center offers many of the same insights for preparing an operational defense as those offered by Kesselring's defense of Italy. First and foremost, it shows that failure to study and understand the enemy leads to disaster. It also shows the importance of a defense in depth with strong mobile reserves augmented by operational fires. Planners today must include these characteristics when designing a defense early in a major regional contingency. They must also determine how to support their forces and how to move forces if an adequate transportation infrastructure is not available. Most importantly though, this campaign demonstrates the importance of planning for withdrawals before they are required. And finally, the command and control of all assets in theater should be vested in one commander who is present in theater. Even in today's world with near instantaneous communications, this factor is of major importance. The German disaster resulted from their failure to recognize the importance of these characteristics in an operational defense. U.S. planners must not make the same mistake.

The United States faced its first modern regional contingency in Korea. The forces initially committed to Korea were woefully unprepared in numbers, equipment, and training.<sup>56</sup> Their initial mission was to defeat the attacking North Koreans. That mission was later changed

to stop the attackers until adequate forces could arrive in country, not unlike what forces in the future may face.

On 25 June 1950, North Korean forces invaded South Korea. The U.S. became involved under United Nations auspices and deployed forces to the peninsula to defeat the Koreans. LTG Walton Walker was the operational commander for the U.S. forces deployed. Upon realizing he could not defeat the North Koreans, he decided to fight a positional defense to stop the enemy's advance. His forces fought a series of delaying battles from the Han River south until it was able to form the "Pusan Perimeter." He used the mountainous terrain of Korea and the many rivers as a means of establishing positions to defend from. He continually moved his limited forces from one critical point to another to stop the Koreans. Walker was ultimately successful. His defense allowed additional forces to mobilize and deploy to Korea where they later conducted offensive operations.

Walker worked constantly to remove the enemy's operational mobility while maintaining his own. He directed his forces to prepare every bridge, culvert, and tunnel throughout Korea for demolition.<sup>57</sup> He had naval forces destroy roads near the sea.<sup>58</sup> These actions slowed the enemy, but did not stop them.

Maintaining his own freedom of mobility required expending valuable manpower. Enemy tactics called for

pushing light infantry deep to cut Walker's LOCs. These LOCs required forces to protect them and keep them open.<sup>59</sup> He could not protect them all so Walker had to choose which LOCs to protect. The result of the effort paid off. Late in August, Walker was able to move the entire 25th Division several hundred miles in two days to counter a North Korean push in the south toward Pusan. Had Walker failed to maintain his mobility, he may have lost Pusan, the only port available on the peninsula at that time.<sup>60</sup>

Fires, especially air power in the early weeks, played a major part in defending against the North Koreans. At one point, heavy and light bombers were actually flying close air support.<sup>61</sup> They attacked enemy troop concentrations.<sup>62</sup> Air forces were the quickest to arrive in theater. They were, therefore, available as reserves and counterattack forces as discussed earlier.

Centralized command and control under Walker was critical. Without it the defense may have failed. An example of this centralization is the Air Force headquarters that was established. By 5 July, an air force headquarters was established in Taejon, placing all U.S. and Allied air forces under Walker. Additionally, Walker had tasking authority over the Navy.<sup>63</sup> Without this centralization, approval for support would have remained in Japan. Immediate requirements always would have been late. A commander must control all combat



assets within his theater. Failure to do so results in a lack of unity of effort and potential failure.

Walker maintained his mobility on interior and exterior LOCs to supply his forces and move reserves about.<sup>64</sup> As discussed earlier, he closely guarded his critical interior LOCs utilizing them where appropriate. Enjoying total freedom of the seas and air, he utilized exterior LOCs to supply forces, not on interior LOCs.<sup>65</sup> He was able to exploit both of these LOCs and keep his forces supplied throughout the delay into the Pusan Perimeter. Once the Perimeter was established, his interior lines allowed him great mobility as exemplified in the 25th Division's move to the south in late August.

Walker's vision of his defense provided for withdrawals during the delay into the Pusan Perimeter. Even when MacArthur told him to "stand or die," Walker continued to prepare for withdrawals.<sup>66</sup> He judged withdrawals might be necessary so he had his forces continually reconnoiter positions to their rear. When possible, he would have these positions improved. The positions that ultimately became the Pusan Perimeter were selected and prepared prior to withdrawing into them. By not planning his withdraw, Eighth Army might have been destroyed like German Army Group Center was in Bellorussia. Defenders must be prepared to withdraw, whether under pressure or not. Not doing so may lead to destruction.

Since this operation closely resembles a major regional contingency, its insights become very valuable. Walker demonstrated that he could exploit the individual strengths he initially had available in theater. Today's commanders and planners must do the same given such a contingency. Air power must be exploited because of its availability early during a contingency. It arrives in theater before heavy ground forces and can serve to supplement them or as operational reserves. Movement of the limited ground forces becomes crucial. Critical LOCs must be identified, protected, and exploited. At the same time, the enemy's LOCs must be attacked in order to slow his advance. Walker also understood that withdrawals are difficult to execute and require meticulous planning and coordination. He knew they are nearly impossible to execute on the "fly." He therefore anticipated and planned for them. Today's planners must do the same thing. And finally, an operation of this type requires centralized command and control under a bold leader like Walker. Failure to recognize any of these characteristics could result in a failure the U.S. cannot afford.

TABLE 2 summarizes all the characteristics found important for a successful defense from the historical case studies. Each characteristic greatly attributed to the successor failure of one or all of the case studies. By no means did each case study contain every

<u>Types of Defense</u>	<u>Mobile Reserves</u>	<u>Offensive Actions</u>
-Cordon	-Ground	-Against Flank
-Positional	-Air	<u>Planned Withdrawals</u>
<u>Mobility</u>	-Fires	<u>Depth</u>
-Interior Lines	<u>Intelligence</u>	<u>Durable Forces</u>
-Protect LOCs	-Study Enemy	<u>Training</u>
-Remove Enemy's LOCs	<u>Centralized C2</u>	<u>Bold Leadership</u>

TABLE 2 - Historical Characteristics

characteristic. Each situation was different, but these characteristics are the same as many of those that military theorists advocate for a successful defense.

#### IV. MODERN DOCTRINE AND TRAINING

The draft of the new FM 100-5, Operations, defines doctrine as "the statement of how America's Army, as part of a joint team, intends to fight..."<sup>67</sup> It is evident that the Army's doctrine should adequately discuss defensive operations. Operational commanders should be able to organize successful defenses from studying the doctrine.

The 1986 version of FM 100-5 covers the majority of the characteristics of a successful defense as outlined in theory and insights from history. This version is directive in nature, telling readers exactly how a defense should be organized. In presenting information

this way, the manual fails to adequately cover several items.

It fails to advocate one commander controlling all the forces available in theater for an operation. It discusses unity of command in an appendix, but this discussion does not advocate giving complete control to one commander. It asserts that commanders only require coordination authority for the assets in theater.<sup>68</sup> This concept is wholly inadequate. Lack of complete control over assets, "unity of command," results in a deficiency of unity of effort. A commander needs control in order to employ assets at the decisive place and time. Only being able to coordinate for the use of such assets, rather than control them, leads to failure. This will especially be true at the operational level with limited forces available.

Firepower seems to be advocated for deep operations only.<sup>69</sup> As discussed, theory and experience both show that firepower constitutes an ideal reserve or counterattack force. It is much too valuable an asset to be thought of merely as a deep attack asset. An operational commander with limited forces will find firepower a worthwhile asset when organizing his defense.

FM 100-15, Corps Operations, is the only other manual presently published that is operational in nature. Published in 1989, it is based on a former Soviet threat. Even so, it does provide a good formula for building a

defense, although it is heavily offensive oriented. The defense section heavily emphasizes the offensive characteristics of the defense, to the detriment of the pure defensive. It does cover most of the characteristics found in the review of theory and the insights drawn from the historical review. The principle area that it fails to cover adequately is planning for a withdrawal. It does state that a withdrawal requires detailed planning and coordination when given a mission to execute one. However, it does not advocate always being prepared to execute one while defending.<sup>70</sup> As seen in the German Army Group Center example, lack of preparation to execute a withdrawal could result in disaster. Defenders must anticipate having to execute one and always be prepared. Fm 100-15's major drawback is the lack of discussion of planned withdrawals.

Svechin, von Leeb, and others all advocated the need to adequately study the defense in order to execute one properly. It therefore is vital that the Army's training institutions study the operational level of war and its relationship to the defense. One such school is the Command and General Staff College (CGSC). For many officers this is the last, and only, formal education that covers the operational level of war. Another academic program for the operational level of war is the Advanced Military Studies Program (AMSP) of the School of Advanced Military Studies (SAMS). It is specifically

designed to produce officers with the ability to plan and execute campaigns across the spectrum of war in a changing world. If the theorists are correct, the Army should sufficiently instruct the defense in these institutions so students can plan one for the initial stages of a major regional contingency.

In the "core" curriculum of CGSC, defense doctrine is only studied in depth during one four-hour block of instruction during Course C310, Fundamentals of Combat Operations. The four-hour block is part of lesson three of that course. In this block only a cursory look is given to a brigade level defense. Topics other than defense covered during the same lesson include offensive operations, sustainment operations, SOf operations, and command and control of a corps.<sup>71</sup> Additionally, none of the exercises during CGSC involve defensive operations above brigade level. The CGSC Advance Tactics Course, required for all combat and combat support officers holding a plans and operations functional area, does not study the defense. In aggregate, this is woefully little time spent on defensive operations. If theorists and commanders from historical defensive operations are to be believed, insufficient study of the defense will lead to disaster.

The AMSP program provides a few students the opportunity to formally study the defense in greater detail. During the AMSP theory course, two four-hour

lessons are spent specifically on the attack and the defense. Each is given equal time with the interrelation of the two looked at in depth. The limitation of this study is that only Clausewitz and Sun Tzu are read.<sup>72</sup> As seen from this monograph, there are additional theorists that have explored the defense. Although this is a limitation of the theory portion, a great deal more about defense is studied in AMSP than in CGSC.

The other courses within AMSP attempt to treat defense equally with offense. Course 2, Tactical Dynamics, studies the application of U.S. Army doctrine. It equally focuses on the defense and the offense. The exercises associated with it involve a balance of offensive and defensive operations. Course 4, The Historical Practice of Operational Art, by design should spend equal time between offense and defense. The premise is that all historical campaigns have an attacker and a defender. Consequently, when studying campaigns, both operations should be studied. However, during seminar discussions, the focus is normally on the offensive aspects rather than defensive. Accordingly, officers who attend AMSP study the defense to a greater extent than their peers which provides them with a more detailed understanding of how to plan and execute one.

## V. CONCLUSION

Clausewitz states in the closing pages of Book Six that there can be no governing principles for the defense. He attributes this to the very complex nature of defense. Whereas attack is merely the thrusting of force, defense is repelling the blows and determining when to strike oneself. By virtue of its complexity, Clausewitz claims defense is harder to perform than offense.<sup>73</sup> Today, many military officers claim the offense is much more complex and harder to execute than the defense. Their reasons range from the difficulty of synchronizing assets during an attack to the amount of confusion associated with one. But, the same difficulties exist with the defense in addition to other factors as discussed by Clausewitz and this monograph. Additionally, the defender is constantly reacting to the attacker, even when he removes the attacker's initiative. The defender must always wait for the attacker to move. Hence, the defense is much more complex and difficult than the offense, requiring the same skills as the offense plus many more. Military professionals therefore must take the defense seriously and study it more thoroughly.

Clausewitz may claim there are no governing principles for the defense, but military professionals will find that theorists do provide characteristics that must be studied and considered when planning a defense if



it is to be successful. These characteristics have been laid out in Chapter II of this monograph. Although many may feel that these characteristics only apply to tactical battles, this simply is not true. Every aspect of a defense espoused by a military theorist can be transferred to the operational level of war.

These characteristics become even more important when considering that bridge in time between the tactical and operational levels war during a major regional contingency. That bridge exists after the arrival of the first forces and before the complete force package arrives and is ready for operations. Because of the limited forces available, a commander may think he is merely fighting a tactical battle, but it is in truth operational in scope because the defense must consider the whole theater of operations.

The operational context of the conflict will also determine how the follow-on forces will be employed upon arrival. How the commander has envisioned his defense and the transition to the offense will determine how they are emplaced. The successful defense is the first priority, though, and military theory has laid out the characteristics leading to success. Without considering these attributes and their applicability, an operational defense may be doomed to failure from the beginning.

In analyzing the three historical campaigns, it becomes apparent that history reinforces what military

<u>THEORY</u>	<u>HISTORICAL INSIGHTS</u>	<u>CURRENT DOCTRINE</u>
<u>Types of Defense</u>	<u>Types of Defense</u>	<u>Types of Defense</u>
- Cordon	- Cordon	-
- Positional	- Positional	- Positional
- Draw into Country	-	-
- Mobile	-	- Mobile
<u>Intelligence</u>	<u>Intelligence</u>	<u>Intelligence</u>
- Study Enemy	- Study Enemy	-
- Reconnaissance	-	- Reconnaissance
- Counter-Recon	-	- Counter-Recon
<u>Mobility</u>	<u>Mobility</u>	<u>Mobility</u>
- Interior Lines	- Interior Lines	- Interior Lines
- Protect LOCs	- Protect LOCs	- Protect LOCs
-	- Remove Enemy's LOCs	- Remove Enemy's LOCs
<u>Mobile Reserves</u>	<u>Mobile Reserves</u>	<u>Mobile Reserves</u>
- Ground	- Ground	- Ground
- Air	- Air	- Air
- Fires	- Fires	- Fires
<u>Planned Withdrawals</u>	<u>Planned Withdrawals</u>	<u>Planned Withdrawals</u>
<u>Depth</u>	<u>Depth</u>	<u>Depth</u>
	<u>Centralized C2</u>	
<u>Training</u>	<u>Training</u>	<u>Training</u>
<u>Durable Forces</u>	<u>Durable Forces</u>	
<u>Bold Leadership</u>	<u>Bold Leadership</u>	<u>Bold Leadership</u>
<u>Offensive Actions</u>	<u>Offensive Actions</u>	<u>Offensive Actions</u>
- Against Flanks	- Against Flanks	- Against Flanks
- Against LOCs	-	- Against LOCs
- Against Rear	-	- Against Rear
- With Stay Behinds	-	-
- With Detachments	-	- With Detachments
- With Reserves	-	- With Reserves

**TABLE 3: Theory, History, and Doctrinal Conclusions**

theorists claim is important for a successful defense. The characteristics advocated by military theorist, history and those found in doctrine can be compared by looking at TABLE 3. The successful defensive campaigns

of Kesselring in Italy and Walker in Korea contain the same characteristics military theorists claimed successful campaigns should. The German Army Group Center defense contained none of them. By failing to study the enemy, protect their LOCs, establish a defense in depth, anticipate a withdrawal, or implement many other defense characteristics, the German defense failed miserably.

Current U.S. Army doctrine has several deficiencies when compared to theory and historical case studies. But, emerging doctrine, such as the new version of FM 100-5, corrects the shortfalls of older manuals and should cause other Army manuals to do the same. FM 100-5, being more of a "how to think" manual, provides a better discussion of the defense. For example, it asserts that operations should be commanded by one individual who controls all assets in a theater.<sup>74</sup> This and other characteristics of a successful defense are discussed in similar theoretical terms as found in this monograph, allowing the commander to utilize the characteristics needed based on his mission, the enemy, the terrain, troops and time (METT-T). If a commander studied this manual, he would understand the essence of the defense, know what characteristics lead to a successful one, and be able to organize one. But the defense is much more complicated than the offense, as claimed by Clausewitz and demonstrated by the

requirements for success in the defense. Other military theorists assert it is and history has supported such a claim.

The U.S. Army does not go far enough in training its officers to organize a defense, much less an operational defense under the conditions discussed throughout this monograph. While it is true that AMSP provides a more detailed study, it still may not be completely sufficient. Additional instruction on the defense must become a requirement within the Army's higher level schools.

CGSC should incorporate the defense into its training at each level of command it studies. It should be given, as a minimum, equal time with the offense during classes and exercises. The fundamental characteristics of a successful defense asserted in theory and supported by history should be taught and exercised. AMSP does not require major changes to its curriculum. It might consider including readings on defense from many of the more contemporary theorists if only as a suggested additional reading.

AMSP should also require adherence in seminars to explore both offense and defense in a campaign and it should consider adding several defensive oriented campaigns to Course 4. An example of such a campaign is Walker's defense in Korea. These small changes will ensure defense is studied within AMSP.

The U.S. Army is offensively oriented as indicated in its manuals and formal training. In the early phases of major regional contingencies, defensive operations will reign supreme. Even though the offense is an integral part of it, the defense's ultimate aim is to preserve the force and gain time. In these operations, these two aims are paramount because the existing active military strength is significantly decreasing and increases in this force structure will require mobilization and deployment of reserve forces to terminate the conflict. The alternatives to a successful defense may be more costly than the U.S. is willing to pay. The defense must therefore be adequately taught in its formal institutions, especially those who train potential operational planners and commanders.

The next decade will be a dynamic time for the U.S. Army. Its future is difficult to project. It is certain that should a major regional contingency arise, all the needed forces cannot arrive in theater at once. It will require time. How much time will depend on future defense budgets. Therefore, those forces first to arrive must defend to buy time for the mobilization and deployment of other forces required to bring the conflict to a close. The Army must make every effort to ensure those forces are well-trained and prepared to conduct that defense.

## VI. ENDNOTES

1. U.S. Army. FM 100-5. Operations (Final Draft) (Washington, D.C.: Department of the Army, 19 January 1993), 7-29.
2. Colin L. Powell, "U.S. Forces: Challenges Ahead," Foreign Affairs (Winter 1992/93), 42-43; Colin L. Powell, Speech before the Professional Services Council, Washington, D.C., 18 November 1992.
3. Carl von Clausewitz, On War, ed. and trans. Michael Howard and Peter Paret (Princeton, NJ: Princeton University Press, 1965), 357.
4. Ibid., 358.
5. Clausewitz, On War, 357-359.
6. Antoine Henri Jomini, The Art of War, trans. G. H. Mendell and W. P. Craighill (Westport, CN: Greenwood Press, Publishers, 1862), 115-116; Ritter von Leeb, Defense, in Roots of Strategy, Book 3 (Harrisburg, PA: Stackpole Books, 1991), 124.
7. Aleksandr A. Svechin, Strategy, ed. Kent D. Lee (Minneapolis, MN: East View Publication, 1992), 159-160.
8. Clausewitz, On War, 470.
9. Svechin, Strategy, 232-233; von Leeb, Defense, 123-124.
10. Clausewitz, On War, 358.
11. Ibid, 382.
12. von Leeb, Defense, 698-74; Clausewitz, On War, 453.
13. von Leeb, Defense, 87.
14. Clausewitz, On War, 457; Jomini, The Art of War, 229.
15. Svechin, Strategy, 232; Clausewitz, On War, 507-510.
16. Svechin, Strategy, 232.
17. Jomini, The Art of War, 198; von Leeb, Defense, 92.
18. von Leeb, Defense, 89-91.

19. Clausewitz, On War, 469; von Leeb, Defense, 126.
20. Clausewitz, On War, 357-370; Jomini, The Art of War, 168; von Leeb, Defense, 14-16.
21. Clausewitz, On War, 383.
22. Clausewitz, On War, 386, 392, and 416; Jomini, The Art of War, 184-185; von Leeb, Defense, 89 and 128-130.
23. Clausewitz, On War, 460-461; Jomini, The Art of War, 201-202.
24. Clausewitz, On War, 381 and 507.
25. Jomini, The Art of War, 210-202.
26. von Leeb, Defense, 37.
27. Von Leeb, Defense, 79; Svechin, Strategy, 167.
28. Clausewitz, On War, 514; von Leeb, Defense, 37.
29. Svechin, Strategy, 171-2.
30. Dominick Graham and Shelford Bidwell, Tug of War (New York, NY: St. Martin Press, 1986), 49 and 89.
31. Graham and Bidwell, Tug of War, 106.
32. Ibid., 16.
33. Ibid., 110.
34. W. G. F. Jackson, The Battle for Italy (New York, NY: Harper and Row, Publishers, 1967), 143.
35. Frido von Senger und Etterlin, Neither Fear Nor Hope. The Wartime Memoirs of the German Defender of Cassino, trans. George Malcolm (Navato, CA: Presidio Press, 1963), 216 and 235.
36. Graham and Bidwell, Tug of War, 292.
37. Ibid., 226.
38. Graham and Bidwell, Tug of War, 18; Jackson, The Battle of Italy, 131-132; von Senger, Neither Fear Nor Hope, 219-220.
39. Graham and Bidwell, Tug of War, 231-233; Jackson, The Battle for Italy, 14.

40. Graham and Bidwell, Tug of War, 143-150 and 165-167; von Senger, Neither Fear Nor Hope, 233-234.
41. Graham and Bidwell, Tug of War, 284-287.
42. von Senger, Neither Fear Nor Hope, 219-222.
43. Jackson, The Battle for Italy, 16.
44. Earl F. Ziemke, Stalingrad to Berlin, The German Defeat in the East (Washington, D. C.: Center for Military History, U.S. Army, 1985), 324-326; R. Ernest Dupuy and Trevor N. Dupuy, The Encyclopedia of Military History from 3500 B.C. to the present (New York, NY: Harper & Row Publishers, 1986), 1115-1116.
45. Gerd Niepold, Battle for White Russia, The Destruction of Army Group Center, June 1944, trans. Richard Simpkin (Elmsdroff, NY: Brassey's Defence Publishers, 1987), 140-143.
46. Ziemke, Stalingrad to Berlin, 324.
47. Niepold, Battle for White Russia, 118-119.
48. Ziemke, Stalingrad to Berlin, 321.
49. Ibid., 314.
50. Clausewitz, On War, 404-408.
51. Ziemke, Stalingrad to Berlin, 133, 142 and 265-266.
52. Ibid., 318-320.
53. Niepold, Battle for White Russia, 265-267.
54. Niepold, Battle for White Russia, 117, 130, 135, 141, 144, 157, 159, 169, and 195.
55. Niepold, Battle for White Russia, 114; Ziemke, Stalingrad to Berlin, 323.
56. Clay Blair, The Forgotten War, America in Korea, 1950-1953 (New York, NY: Anchor Press, 1987), 121-123.
57. Roy E. Appleman, United States Army in Korea, South to the Naktong, North to the Yalu (June-November 1950) (Washington, D.C.: Center for Military History, U.S. Army, 1986), 122, 184, and 248-249.
58. Ibid., 182.



59. Ibid., 182.
60. Appleman, South to the Naktong, 247-250; Blair, The Forgotten War, 168-170.
61. Appleman, South to the Naktong, 95, 120.
62. D. Clayton James, The Years of MacArthur, vol III (Boston, MA: Houghton-Mifflin Company, 1985), 450-451.
63. Appleman, South to the Naktong, 95.
64. James, The Years of MacArthur, 448; Blair, The Forgotten War, 183; Appleman, South to the Naktong, 170.
65. Appleman, South to the Naktong, 183.
66. Blair, The Forgotten War, 167-169.
67. U.S. Army, FM 100-5, Operations (Final Draft), 1-i.
68. U.S. Army, FM 100-5, Operations (Washington, D.C.: Department of the Army, May 1986), A175-176.
69. Ibid., 145, 149, and 150.
70. U.S. Army, Fm 100-15, Corps Operations (Washington, D.C.: Department of the Army, September 1989), 7-1 - 7-6.
71. U.S. Army Command and General Staff College, C310, Fundamentals of Combat Operations (Course syllabus, instructor's notes, and instructor's VGT slides) (Fort Leavenworth, KS: Command and General Staff College, 1992), 55-62.
72. U.S. Army School of Advanced Military Studies, Syllabus, AMSP Course 1, Foundations of Military Theory (Ft Leavenworth, KS: U.S. Army Command and General Staff College, 1992), 1-13-1 - 1-14-3.
73. Clausewitz, On War, 516-517.
74. U.S. Army, FM 100-5 (Final Draft), 2-9.

## VII. BIBLIOGRAPHY

### Books

- Appleman, Roy E. United States Army in Korea, South to the Naktong, North to the Yalu (June-November 1950). Washington, D.C.: Center for Military History, U.S. Army, 1986.
- Blumenson, Martin. U.S. Army in World War II, Mediteranean Theater of Operations, Salerno to Cassino. Washington, D.C.: U.S. Government Printing Office, 1969.
- Blair, Clay. The Forgotten War, America in Korea, 1950-1953. New York, NY: Anchor Press, 1987.
- Clausewitz, Carl von. On War. Edited and translated by Michael Howard and Peter Paret. Princeton, NJ: Princeton University Press, 1976.
- Dupuy, R. Ernest and Trevor N. Dupuy. The Encyclopedia of Military History from 3500 B.C. to the Present. New York NY: Harper and Row Publishers, 1986.
- Graham, Dominick and Shelford Bidwell. Tug of War, The Battle for Italy, 1943-1945. New York, NY: St. Martin Press, 1986.
- Hart, B. H. Liddel. Strategy. New York, NY: Meridian Books, 1991.
- Jackson, W. G. F. The Battle for Italy. New York, NY: Harper and Row, Publishers, 1967.
- James, D. Clayton. The Years of MacArthur, Vol III. Boston, MA: Houghton-Mifflin Company, 1985.
- Jomini, Antoine Henri. The Art of War. Translated by G. H. Mendell and W. P. Craighill. Westport, CN: Greenwood Press, Publishers, 1962.
- Leeb, Ritter von. Defense. Translated by Dr. Stefan T. Possony and Daniel Vilfroy. In Roots of Strategy, Book 3. Stackpole Books, 1991.
- Neipold, Gerd. Battle for White Russia, The Destruction of Army Group Center, June 1944. Translated by Richard Simpkin in 1944. Elmsdroff, NY: Brassey's Defence Publishers, 1987.

Senger Und Etterlin, Frido von. Niether Fear Nor Hope. The Wartime Memoirs of the German Defender of Cassino. Tranlated by George Malcom. Novato, CA: Presidio Press, 1963.

Svechin, Aleksandr A. Strategy. Translated and Edited by Kent D. Lee. Minneapolis, MN: East View Publication, 1992.

Ziemke, Earl F. Stalingrad to Berlin. The German Defeat in the East. Washington, D.C.: Center for Military History, U.S. Army, 1984.

#### Journal Articles

Powell, Colin L. "U.S. Forces: Challenges Ahead." Foreign Affairs (Winter 1992-93): 32-45.

#### Speeches

Powell, Colin L. Speech given before the Professional Services Council. Washington, D.C. November 18, 1992.

Powell, Colin L. Speech given before the U.S. Naval Academy. Annapolis, MD. 11 January 1993.

#### Unpublished Monographs

Cain, Francis M., III, MAJ, U.S. Army, "The Ardennes-1944: An Analysis of the Operational Defense." Unpublished SAMS Monograph, 1986.

Esper, Michael H., MAJ, U.S. Army. "Defensive Culmination: A Useful Piece of Theory?" Unpublished SAMS Monograph, 1991.

- Lorenz, Oliver E., MAJ, U.S. Air Force. "The Battle of Britain: An Analysis in Terms of Center of Gravity, Culminating Point, Fog, Friction, and the Stronger Form of War". Unpublished SAMS Monograph, 1989..
- Moss, Oliver J., MAJ, U.S. Air Force. "Serching for the Stronger Form of War at the Operational Level in the 20th Century: The Defense or the Offense." Unpublished SAMS Monograph, 1987.
- Quinlan, Kenneth J., MAJ, U.S. Army. "Initiative in the Operational Defense - - Is It Possible?." Unpublished SAMS Monograph, 1987.
- Rodriguez, Guillermo A., MAJ, U.S. Army. "Regional Conflict and the Superiority of the Defense - Challenges for U.S. Operational Commanders." Unpublished SAMS Monograph, 1991.
- Redlinger, Mark J., MAJ, U.S. Army. "Hans Delbruck and Clausewitz's Culminating Points." Unpublished SAMS Monograph, 1988.
- Sikes, James E., MAJ, U.S. Army. "Karkov and Sinai, A Study in Operational Transition." Unpublished SAMS Monograph, 1988.
- Wilson, Terry B., MAJ, U.S. Army. "Soviet Defense Against Operations Barbarossa, A Possible Model for Future Defense Doctrine." Unpublished SAMS Monograph, 1991.

#### U.S. Government Publications

- U.S. Army. FM 100-5, Opearations. Washington, D.C.: Department of the Army, October 1986.
- U.S. Army. FM 100-5, Operations (DRAFT). Washington, D.C.: Department of the Army, January 1993.
- U.S. Army. FM 100-15, Corps Operations. Washington, D.C.: Department of the Army, October 1989.
- The White House. "National Security Strategy of the United States. Washington, D.C.: U.S. Government Printing Office, 1993.

### U.S. Army CGSC Publications

- U.S. Army Command and General Staff College. "C310, Fundamental of Combat Operations (Course Syllabus, Instructor's Notes, and Instructor's VGTs)." Ft Leavenworth, KS: U.S. Army Command and General Staff College, 1992.
- U.S. Army School of Advanced Military Studies. "AMSP Course 1, Foundations of Military Theory, Course Syllabus." Ft Leavenworth, KS: U.S. Army Command and General Staff College, 1992.
- U.S. Army School of Advance Military Studies. "AMSP Course 2, Tactical Dynamics, Course Syllabus." Ft Leavenworth, KS: U.S. Army Command and General Staff College, 1992.
- U.S. Army School of Advance Military Studies. "AMSP Course 3, The Contemporary Practice of Operational Art, Parts I-III, Course Syllabus." Ft Leavenworth, KS: U.S. Army Command and General Staff College, 1992.
- U.S. Army School of Advance Military Studies. "AMSP Course 3, The Contemporary Practice of Operational Art, Parts IV-V, Course Syllabus." Ft Leavenworth, KS: U.S. Army Command and General Staff College, 1992.
- U.S. Army School of Advance Military Studies. "AMSP Course 4, The Historical Practice of Operational Art, Course Syllabus." Ft Leavenworth, KS: U.S. Army Command and General Staff College, 1992.